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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,796	08/28/2003	Takashi Sugiyama	241548US0DIV	5601
22850	7590	04/22/2004		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER BLACKWELL RUDASIL, GWENDOLYN A	
			ART UNIT	PAPER NUMBER

1775

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,796

Applicant(s)

SUGIYAMA ET AL.

Examiner

Gwendolyn A. Blackwell-Rudasill

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,9-14,17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4,9-14,17 and 18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/2667541.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/28/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 11-12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 6,706,407. Although the conflicting claims are not identical, they are not patentably distinct from each other because the layer structure and the composition of the layers of the coating film disclosed in the present application are the same as those presented in patented claims 1-4, thereby possessing the physical properties of surface sheet resistance and visible light transmittance as set forth in patented claims 1-4.

Claim Rejections - 35 USC §§ 102/103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-2, 9-10, 13-14, and 17-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over United States Patent no. 6,291,074, Sakai et al.

Regarding claims 1-2

Sakai et al disclose a heat radiation reflective glass comprising a glass plate with a film that can have multiple layers. The film contains cobalt, chromium, and iron. Cobalt can be present in an amount ranging from 65-96 wt%, chromium from 2-25 wt%, and iron from 2-33 wt%. Another composition for the film comprises cobalt from 2-96 wt%, chromium from 2-8 or 18-96 wt%, and iron from 2-96 wt%. The film can have a double layer construction, (columns 1-2, lines 45-30).

Regarding claims 9-10, 13-14 and 17-18

Sakai et al also disclose that once the film is on the glass the coated glass is subject to tempering, (columns 6-7, lines 63-10).

Regarding claims 13-14 and 17-18

A chemical composition and its properties are inseparable. *MPEP 2112.02*. Because the prior art exemplifies the applicant's claimed composition in relation to the film components, the claimed physical properties relating to the sheet resistance and light transmittance are inherently present in the prior art. Absent an objective evidentiary showing to the contrary, the addition of the claimed physical properties to the claim language fails to provide patentable distinction over the prior art.

In the alternative, because the cobalt and iron ranges of Sakai et al encompass the ranges as exemplified, one of ordinary skill in the art would be able to optimize the amount of cobalt

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and iron through routine experimentation to obtain a glass with the desired visible light transmittance, (column 6, lines 10-55).

Regarding claims 1-2

Claims 1 and 2 are product by process claims wherein the patentability of the product does not depend on its method of production. "If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *See MPEP 2113*. As such, the process limitations within claims 1 and 2 do not provide patentable distinction between the claimed invention and the prior art.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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7. Claims 3-4 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent no. 6,291,074, Sakai et al in view of United States Patent no. 4,022,947, Grubb et al.

Regarding claims 3-4 and 11-12

Sakai et al disclose a heat radiation reflective glass comprising a glass plate with a film that can have multiple layers. The film contains cobalt, chromium, and iron. Cobalt can be present in an amount ranging from 65-96 wt%, chromium from 2-25 wt%, and iron from 2-33 wt%. Another composition for the film comprises cobalt from 2-96 wt%, chromium from 2-8 or 18-96 wt%, and iron from 2-96 wt%. The film can have a double layer construction, (columns 1-2, lines 45-30). Sakai et al also disclose that nickel can be added to the film "in an appropriate quantity" to decrease the visible light transmittance. Sakai et al further disclose that once the film is on the glass the coated glass is subject to tempering, (columns 6-7, lines 63-10). Sakai et al do not specifically disclose a coating with only chromium, nickel, and iron.

Grubb et al disclose a transparent panel having a high reflective sputtered coating comprising iron, nickel, and chromium. The film is comprised of a first layer of a compound of the aforementioned metals and a second layer of an oxide of the metals. The oxide film can be either an inner or outer layer in the multilayered structure. In addition, a protective film such as a metal oxide can be provided as an outermost layer, (columns 3-4, lines 65-9). In the metal oxide layer, iron is present in an amount ranging from 0.5-81 wt%, nickel 3-85 wt%, and chromium 14-26 wt%, (column 4, lines 23-26).

Sakai et al and Grubb et al disclose inventions that provide heat radiation films on substrates. Sakai et al disclose a chromium, iron, and cobalt that can also have nickel

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incorporated therein to control the visible light transmittance of the film. Grubb et al disclose a nickel, chromium, and iron containing oxide film that also controls visible light transmittance. It would have been obvious to one skilled in the art at the time of invention to modify the layer structure of Sakai et al with the nickel containing oxide film of Grubb et al to create a multilayered structure that has decreased visible light transmittance in addition to controlling the color tones of the film, (Sakai et al, column 6, lines 25-27).

It is also within the skill of one in the art to optimize the proper order of the films through routine experimentation depending on the purpose and location of the film. For example if the coating will be exposed to the elements it would seem fitting to make the outermost coating the chromium/iron/nickel oxide film to provide a durable protective coating, (Grubb et al, column 3, lines 18-25).

Regarding claims 3 and 4

Claims 3 and 4 are product by process claims wherein the patentability of the product does not depend on its method of production. "If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *MPEP 2113*. As such, the process limitations within claims 3 and 4 do not provide patentable distinction between the claimed invention and the prior art of record.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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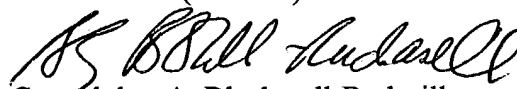
United States Patent no. 5,721,054 disclose a glazing panel with a coating comprised of at least one absorbent layer comprising at least one metal oxide selected from the oxides of chromium, cobalt, and iron; and one non-absorbent layer comprised of a material having a refractive index within the range of 1.4-3.0.

United Kingdom Patent Application Publication no. 2 285 634 disclose a heat ray reflecting glass coating film of cobalt oxide and nickel oxide.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn A. Blackwell-Rudasill whose telephone number is (571) 272-1533. The examiner can normally be reached on Monday - Thursday; 6:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Gwendolyn A. Blackwell-Rudasill
Examiner
Art Unit 1775

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